

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method, comprising:

applying photo-thermal energy to a layer of first material disposed on a layer of second material to diffuse a portion of the first material into the second material by ablating a portion of the first material into a plasma.

2. (currently amended) The method of claim 1, wherein:

the photo-thermal energy is provided by one of a YAG laser, a CO2 laser, ~~and~~ or an infrared laser.

3. (currently amended) The method of claim 1 wherein:

the second material includes metal; and

applying the photo-thermal energy ~~penetrates at least into the layer of first material such that the diffusing~~ forms an electrically conductive trace.

4. (previously presented) The method of claim 3, wherein:

the first material includes tin, the second material includes copper, and the electrically conductive trace includes a copper tin alloy.

5. (original) The method of claim 3, wherein:

the photo-thermal energy includes a laser beam having a width between about 2 mils and about 8 mils.

6-10 (cancelled)

11. (currently amended) A method comprising:

forming a metal layer on a core;

placing a diffusion layer on the metal layer; and

applying photo-thermal energy to the diffusion layer to diffuse a portion of the diffusion layer into the metal layer by ablating a portion of the first material into a plasma.

12-26 (cancelled)

27. (previously presented) The method of claim 1, wherein:

the first material comprises a bottom surface and the first material diffuses into the second material such that an alloy is formed below the bottom surface of the first material.

28. (currently amended) The method of claim 1, wherein:

the photo-thermal energy causes ~~the first material and~~ a portion of the second material to ablate into a plasma.

29. (previously presented) The method of claim 1, wherein:
the photo-thermal energy is provided by a laser programmed to pattern a desired pattern of electrically conductive traces.
30. (previously presented) The method of claim 3, further comprising:
removing non-diffused portions of the layer of first material.
31. (new) The method of claim 11, wherein:
the metal layer comprises copper and the diffusion layer comprises at least one of an organic material, a polymer epoxy, or an organic metal.